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I, SMILJA DRAGOSAVLJEVIC, TEAM LEADER EXAMINATION
SUPPORT AND SALES hereby certify that annexed is a true copy of the
Provisional specification in connection with Application No. 2002950965 for a
patent by SHEIMAN ULTRASONIC RESEARCH FOUNDATION PTY.LTD.
as filed on 23 August 2002.

WITNESS my hand this
Fourth day of September 2003

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SMILJA DRAGOSAVLJEVIC
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SUPPORT AND SALES



23 August 2002

Method and the device for maintaining a constant level of a liquid in a zone of dispersion.

The proposed method/apparatus permits a liquid to be dispersed whilst holding its height constant at the top of a tube. Dispersion always occurs at the interface between the liquid and air at the top the tube. Referring to the figure it will be seen that a tube (1) that has low acoustic absorption properties is situated so that its bottom end is close to the region of maximal intensity of acoustic energy (2), for example, close to the focal point of a concave transducer. The internal diameter of the tube should be similar to the diameter of the focal zone.

The energy of the sonic/ultrasonic field causes the liquid to rise to the top of the tube (1). The liquid becomes nebulised at the air-liquid interface at the top end of the tube.

This method of nebuliser construction may be employed to embody the principles of US patent 5,908,158. In accordance with that patent the top face of the tube (1) is to be located within the bottom part of the intake tube (3) of the nebuliser. By means of the present invention dispersion always occurs at the same level, despite changes in the level of liquid in the capsule (4) as dispersion proceeds. Dispersion stops when the level of liquid falls below the bottom end of the tube (1). This invention when applied to US patent 5,908,158 provides a method for minimizing the lowest level of liquid that can be nebulised. In this example ultrasonic energy from the ultrasonic transducer (5) is transferred to the liquid (6) to be nebulised through a transmitting medium (7).

The inventor

Dr. Vladimir Sheiman

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In the fig(*) is presented other version of the device for maintaining of a constant level of a liquid in the zone of dispersion.

Ultrasonic transducer 1 is mounted on the concentrator 2.

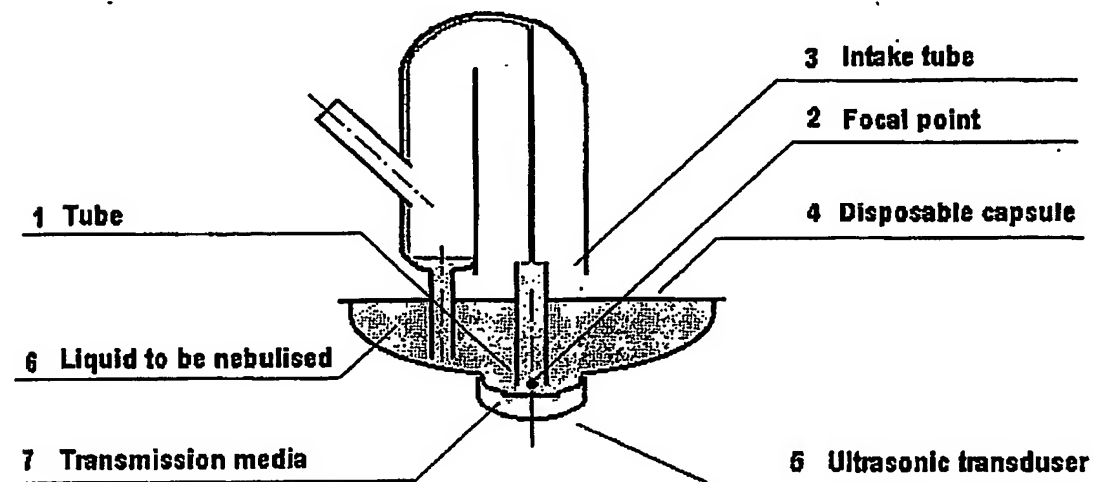
The energy of the sonic/ultrasonic field causes the liquid 3 from the container 4 to rise from the bottom hole to the top of the concentrator.

Dispersion always occurs at the interface between the liquid and air at the top of concentrator.

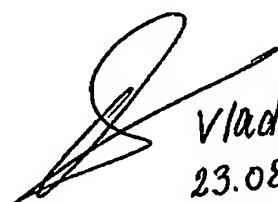
This method could be apply to US patent # 5908158. In this case the top face of the concentrator is to be located within the bottom part of the intake tube 5

The inventor

Dr. Vladimir Sheiman



Figure

 Vladimir Sheiman
23.08.02

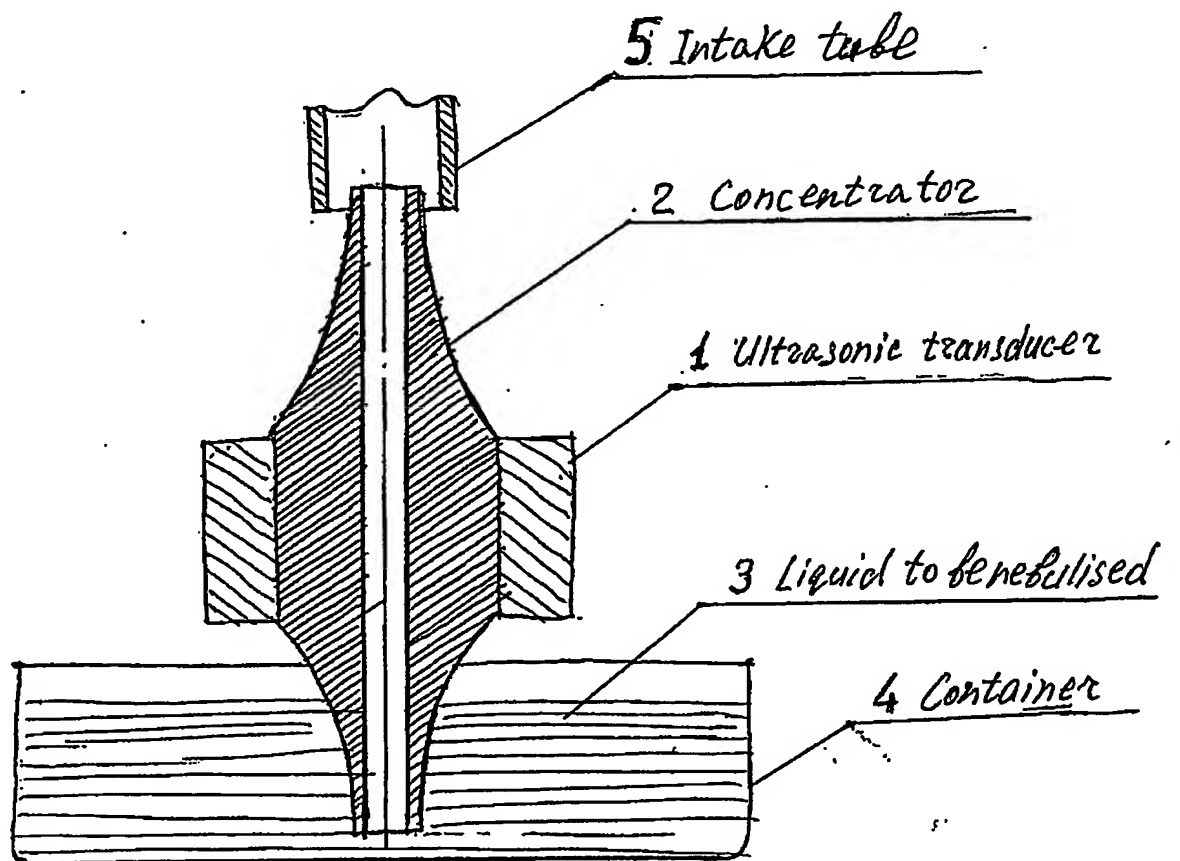


Fig (*)